

Applicant: Chio WONG
Appl. No. 10/051,362

Remarks


The above amendments have been made to place the application in better form for examination. Upon entry of the foregoing amendment, claims 1-16 are pending in the application, with claims 1 and 5 being the independent claims. New claims 11-16 are sought to be added. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Attached hereto is a substitute specification, and a marked-up version of the changes made to the specification and claims by the current amendment. The attached page is captioned **"Version with markings to show changes made."**

Applicant hereby requests an action on the merits at the earliest opportunity.

Respectfully submitted,

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Version with markings to show changes made

1. (Amended) A crystallized bottleneck of a polyester beer bottle, wherein the crystallized bottleneck is ~~has~~ no machined a-screw thread and wherein a crystallized length of the bottleneck portion is ~~in~~ a range of 0.5-35 mm.

2. (Amended) A crystallized bottleneck of a polyester beer bottle according to claim 1, wherein said crystallized length of the bottleneck portion is in a range of 0.5-10 mm.

3. (Amended) A crystallized bottleneck of a polyester beer bottle according to claim 1 ~~or~~ 2, wherein said bottleneck is made with a polyethylene terephthalate material.

4. (Amended) A crystallized bottleneck of polyester beer bottle according to claim 1 ~~or~~ 2, wherein a flanged ring is provided to said crystallized bottleneck of the polyester beer bottle, and said flanged ring has a plane bottom surface at a proper position spacing from ~~the~~ a top flange of the bottleneck; the upper surface of the flanged ring is an acclivitous plane; the acclivitous plane forms an angle of 45° ~~on~~ from the vertical direction and converges to the outer surface of the bottleneck portion.

5. (Amended) A method for manufacturing a crystallized bottleneck of a polyester beer bottle ~~according to claim 1~~, comprising the steps as follows~~of~~;

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forming a blank of a bottle made of polyester material is ~~formed~~ through drying;
~~-,ejecting~~ the polyester material and shaping itsaid ejected polyester material through cooling,
 thereby forming an uncrystallized blank of a bottle;
~~placing then~~ the uncrystallized blank of the bottle is ~~placed~~ for 24-72 hours in an air-
conditioned environment;
~~preheating a~~ crystallizer is ~~preheated~~ for at least two hours or more before prior to
 crystallizing ~~to~~ the blank of the bottle ~~is started~~;
~~loading a~~ bunker is ~~loaded~~ with the uncrystallized blank of the bottle;
~~-,which is deliver~~ing to an blank horse's head via a conveyor belt;
~~-,then~~ sending a bottleneck portion of the uncrystallized bottle blank ~~is sent into a~~ said
 crystallizer to heat ~~it~~ the bottleneck portion at a high temperature and crystallize ~~it~~ the bottleneck
portion via an arbor transmission chain;
 at the same time, controlling the temperature of the uncrystallized portion of the blank body
 is ~~controlled~~, so that the uncrystallized portion of the blank body ~~it is not~~ affected by the high
temperature environment of the crystallizer ~~at high temperature~~;
~~discharging~~ the polyester bottle blank having a crystallized bottleneck portion is ~~discharged~~
 through an output blank horse's head;
~~-and deliver~~ing to another conveyor belt to cool and shape the polyester bottle blank ~~it~~.

6. (Amended) A method according to claim 5, wherein before a said bunker is loaded with

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the uncrystallized blank, the temperature of the bottle blank is controlled by an arbor temperature controller; and, after the uncrystallized bottleneck portion of the bottle blank is fed into the crystallizer, the temperature of the bottle blank is controlled by a bottleneck temperature controller.

7. (Amended) A method according to claim 6, wherein when a said bunker is loaded with the uncrystallized blank, the temperature, of the bottle blank is controlled in a range of 120–150°C.

9. (Amended) A method according to ~~any of~~ claims 5–8, wherein the crystallization time required for each bottle blank is controlled in a range of 90–120_{sec}.

10. (Amended) A method according to claim 5, wherein ~~during while~~ the bottle blank is crystallized in the crystallizer, the body portion of the bottle blank is protected ~~free for the influence~~ from an the high temperature environment of the crystallizer ~~at high temperature~~ by using a cooling partition.

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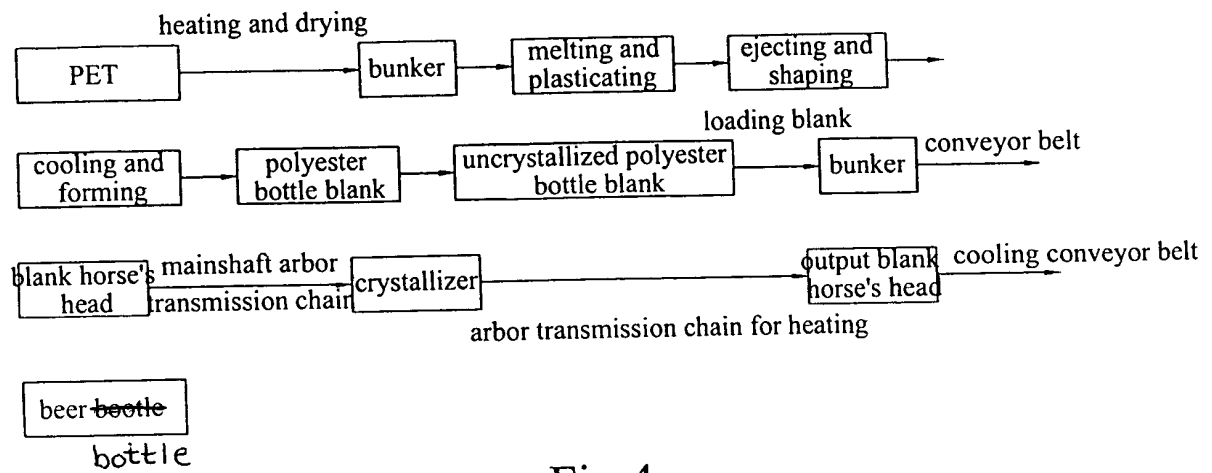


Fig.4

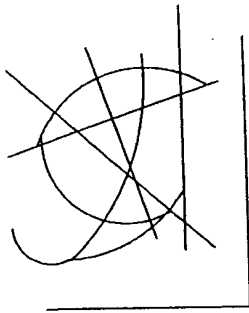


Fig.5

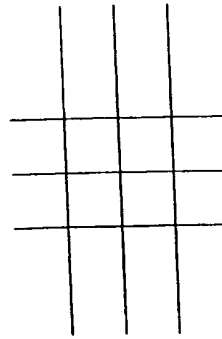


Fig.6

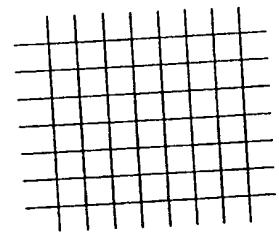


Fig.7